REMARKS

The Office Action dated December 21, 2005, has been received and carefully considered. In this response, claims 1, 58, and 89 have been amended. Entry of the amendments to claims 1, 58, and 89 is respectfully requested. Reconsideration of the outstanding objections/rejections in the present application is also respectfully requested based on the following remarks.

I. THE ALLOWABILITY OF CLAIMS 49-54, 57-60, 77, 78, 80-84 86-88, 90, AND 92

Applicant notes with appreciation the indication on pages 17-18 of the Office Action that claims 49-54, 57-60, 77, 78, 80-84 86-88, 90, and 92 are allowed. Please note that claim 58 has been amended to correct a typographical error. No new matter has been added.

II. THE INFORMALITIES OBJECTION TO CLAIM 1

On page 4 of the Office Action, claim 1 was objected to for not positively claiming the invention. This rejection is hereby respectfully traversed with amendment.

Applicants have amended claim 1 to address the concerns of the Examiner.

In view of the foregoing, it is respectfully requested that the aforementioned informalities objection to claim 1 be withdrawn.

III. THE WRITTEN DESCRIPTION REJECTION OF CLAIMS 1 AND 89

On page 4 of the Office Action, claims 1 and 89 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is hereby respectfully traversed.

The Examiner asserts that there is nothing in the original disclosure supporting the contention that an adjustment to a device during test correlates to operation of the device during normal operation.

Applicants respectfully disagree. The specification is flush with support for the contention that a parameter affecting reception of the transmit repeating pattern at the receive circuit is adjusted either to evaluate how the digital signaling system operates in a normal mode or to improve operation of the digital signaling system in a normal mode (e.g., see paragraphs [0037], [0094]-[0098], [0120], [0202], etc.). Indeed, even the title and abstract indicate that a digital signaling system is evaluated during a test mode and optimized (e.g., by adjusting parameters) for operation during a normal mode.

In view of the foregoing, it is respectfully requested that the aforementioned written description rejection of claims 1 and 89 be withdrawn.

IV. THE OBVIOUSNESS REJECTION OF CLAIMS 1, 3, 4, AND 89

On pages 6-7 of the Office Action, claims 1, 3, 4, and 89 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847). This rejection is hereby respectfully traversed.

Regarding claims 1 and 89, the Examiner asserts that Chen et al. teaches a method for evaluating a digital signaling system comprising the steps of: generating a transmit repeating pattern in a transmit circuit; transmitting the transmit repeating pattern to a receive circuit; generating a receive repeating pattern in the receive circuit; and comparing the transmit repeating pattern to the receive repeating pattern to obtain a comparison. The Examiner acknowledges that Chen et al. fails to teach adjusting a parameter affecting reception of the transmit repeating pattern at the receive circuit. However, the Examiner goes on to assert that Chao et al. teaches such a feature and thus it would have been obvious to combine the

teachings of Chen et al. and Chao et al. to arrive at the claimed invention.

However, it is respectfully submitted that the combination of Chen et al. and Chao et al. fail to teach, or even suggest, the presently claimed invention. Specifically, it is respectfully submitted that, in addition to just failing to teach adjusting, Chen et al. in fact also teaches away from adjusting by specifically teaching that testing is performed to established a bit error rate for a specific data communication apparatus (e.g., see entire specification and drawings). That is, establishing a bit error rate for a specific data communication apparatus is useful in order to classify that specific data communication apparatus. Any adjustments made to that specific data communication apparatus could change the bit error rate and thus change the classification of that specific data communication apparatus. Thus, such adjustments would defeat the purpose of establishing a bit error rate for that specific data communication apparatus. Thus, there would have been no motivation to combine Chen et al. with any reference teaching adjusting a parameter affecting reception of a transmit repeating pattern at a receive circuit, as claimed.

In addition, Chao et al. fails to teach anything regarding the generation and/or transmission of repeating patterns, as

claimed. Indeed, Chao et al. only teaches the use of a single type of test data, in contrast to the use of both transmit and receive repeating patterns, as claimed. Also, Chao et al. fails to teach, or even suggest, adjusting a parameter affecting reception of the transmit repeating pattern at the receive circuit to evaluate how the digital signaling system operates in a normal mode with the adjusted parameter, as claimed. Likewise, Chao et al. fails to teach, or even suggest, adjusting a parameter affecting reception of the transmit repeating pattern at the receive circuit based at least in part upon the comparison such that the operation of the digital signaling system is improved in a normal mode with the adjusted parameter, as claimed. Indeed, Chao et al. specifically teaches that clock signals may be modified only during testing, but not during normal operation and not based upon a comparison (e.g., see column 7, lines 32-46). Thus, it is respectfully submitted that Chen et al. and Chao et al., either alone or in combination, fail to teach, or even suggest, the claimed invention. Accordingly, it is respectfully submitted that claims 1 and 89 should be allowable.

Claims 3 and 4 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 3 and 4 should also be allowable at least by

virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1, 3, 4, and 89 be withdrawn.

V. THE OBVIOUSNESS REJECTION OF CLAIM 2

On page 6 of the Office Action, claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Whitworth et al. (U.S. Patent No. 6,331,787). This rejection is hereby respectfully traversed.

Claim 2 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 2 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 2 be withdrawn.

VI. THE OBVIOUSNESS REJECTION OF CLAIMS 5, 14-16, 18 AND 19

On pages 6-7 of the Office Action, claims 5, 14-16, 18, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Foland, Jr. et al. (U.S. Patent No. 5,761,212). This rejection is hereby respectfully traversed.

Claims 5, 14-16, 18, and 19 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 5, 14-16, 18, and 19 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 5, 14-16, 18, and 19 be withdrawn.

VII. THE OBVIOUSNESS REJECTION OF CLAIMS 9, 10, 41, AND 46

On pages 7-8 of the Office Action, claims 9, 10, 41, and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Gauthier et al. (U.S. Patent No. 5,228,042). This rejection is hereby respectfully traversed.

Claims 9, 10, 41, and 46 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 9, 10, 41, and 46 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 9, 10, 41, and 46 be withdrawn.

VIII. THE OBVIOUSNESS REJECTION OF CLAIM 6

On pages 8 of the Office Action, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Sakoda et al. (U.S. Patent No. 6,230,022). This rejection is hereby respectfully traversed.

Claim 6 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 6 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 6 be withdrawn.

IX. THE OBVIOUSNESS REJECTION OF CLAIM 7

On page 9 of the Office Action, claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Terry (U.S. Patent No. 6,055,297). This rejection is hereby respectfully traversed.

Claim 7 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 7 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 7 be withdrawn.

X. THE OBVIOUSNESS REJECTION OF CLAIM 8

On page 9 of the Office Action, claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Liau et al. (U.S. Patent No. 6,650,698). This rejection is hereby respectfully traversed.

Claim 8 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 8 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even

suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 8 be withdrawn.

XI. THE OBVIOUSNESS REJECTION OF CLAIMS 11, 31-35, AND 38

On pages 10-11 of the Office Action, claims 11, 31-35, and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Maddux et al. (U.S. Patent No. 6,421,801). This rejection is hereby respectfully traversed.

Claims 11, 31-35, and 38 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 11, 31-35, and 38 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 11, 31-35, and 38 be withdrawn.

XII. THE OBVIOUSNESS REJECTION OF CLAIM 12

On pages 11-12 of the Office Action, claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Prentice (U.S. Patent No. 6,674,998). This rejection is hereby respectfully traversed.

Claim 12 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 12 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 12 be withdrawn.

XIII. THE OBVIOUSNESS REJECTION OF CLAIM 13

On page 12 of the Office Action, claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Berkovich (U.S. Patent No. 5,369,755). This rejection is hereby respectfully traversed.

Claim 13 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 13 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 13 be withdrawn.

XIV. THE OBVIOUSNESS REJECTION OF CLAIM 17

On pages 12-13 of the Office Action, claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) in view of Foland, Jr. et al. (U.S. Patent No.

5,761,212) and further in view of Couch (U.S. Patent No. 4,475,210). This rejection is hereby respectfully traversed.

Claim 17 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 17 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 17 be withdrawn.

XV. THE OBVIOUSNESS REJECTION OF CLAIMS 20-22 AND 24-30

On page 13 of the Office Action, Claims 20-22 and 24-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) in view of Foland, Jr. et al. (U.S. Patent No. 5,761,212) and further in view of Johnson et al. (U.S. Patent No. 6,606,041). This rejection is hereby respectfully traversed.

Claims 20-22 and 24-30 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as

discussed above, claims 20-22 and 24-30 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 20-22 and 24-30 be withdrawn.

XVI. THE OBVIOUSNESS REJECTION OF CLAIM 23

On page 14 of the Office Action, claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) in view of Foland, Jr. et al. (U.S. Patent No. 5,761,212) and further in view of Komatsu et al. (U.S. Patent No. 6,631,486). This rejection is hereby respectfully traversed.

Claim 23 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 23 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, this claim recites additional features which are not claimed, disclosed, or

even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 23 be withdrawn.

XVII. THE OBVIOUSNESS REJECTION OF CLAIMS 36 AND 37

On page 14 of the Office Action, claims 36 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Maddux et al. (U.S. Patent No. 6,421,801) and further in view of Johnson et al. (U.S. Patent No. 6,606,041). This rejection is hereby respectfully traversed.

Claims 36 and 37 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 36 and 37 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 36 and 37 be withdrawn.

XVIII. THE OBVIOUSNESS REJECTION OF CLAIMS 39 AND 40

On page 15 of the Office Action, Claims 39 and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) in view of Foland, Jr. et al. (U.S. Patent No. 5,761,212) and further in view of Sakoda et al. (U.S. Patent No. 6,230,022). This rejection is hereby respectfully traversed.

Claims 39 and 40 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 39 and 40 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 39 and 40 be withdrawn.

XIX. THE OBVIOUSNESS REJECTION OF CLAIMS 42 AND 43

On pages 15-16 of the Office Action, claims 42 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Johnson et al. (U.S. Patent No. 6,606,041). This rejection is hereby respectfully traversed.

Claims 42 and 43 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 42 and 43 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 42 and 43 be withdrawn.

XX. THE OBVIOUSNESS REJECTION OF CLAIMS 44, 45, 47, AND 48

On pages 16-17 of the Office Action, claims 44, 45, 47, and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (U.S. Patent No. 5,726,991) in view of Chao et al. (U.S. Patent No. 6,671,847) and further in view of Jalali et

al. (U.S. Patent No. 6,154,659). This rejection is hereby respectfully traversed.

Claims 44, 45, 47, and 48 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 44, 45, 47, and 48 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 44, 45, 47, and 48 be withdrawn.

XXI. THE OBVIOUSNESS REJECTION OF CLAIMS 61, 91, AND 93

On pages 3-4 of the Office Action, the Examiner maintained the rejection of claims 61, 91, and 93 under 35 U.S.C. § 103(a) as being unpatentable over Huysmans et al. (U.S. Patent No. 6,693,881). This rejection is hereby respectfully traversed.

Regarding claim 61, the Examiner asserts that Huysmans et al. teaches a receive circuit (Figure 3) comprising: a receive data storage element (Figure 3; ATM-RC; DMUX; PG2) configured to output a receive data output signal (Figure 3; O1') based on a receive data input signal (Figure 3; IN') received at a receive

data input when the receive circuit is operating in a normal mode, the receive data storage element further configured to provide a repeating pattern signal (column 5, lines 57-64) when the receive circuit is operating in a test mode; and a comparison element (Figure 3; CMP) configured to perform a comparison of a relationship between the repeating pattern signal and the receive data input signal received at the receive data input (column 5, lines 57-65) and to produce a comparison output signal (Figure 3; O2') based on the comparison when the receive circuit is operating in the test mode (column 5, lines 65-67), as claimed.

However, despite the Examiner's attempt to portray Huysmans et al. as teaching a test mode, it is clear that Huysmans et al. fails to provide such a teaching. Indeed, it is respectfully submitted, and the Examiner even acknowledges, that Huysmans et al. clearly teaches away from the use of a test mode (e.g., see column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). Thus, there would have been no motivation to either modify Huysmans et al. to provide a test mode, nor would there have been any motivation to combine Huysmans et al. with any other reference which teaches of having a test mode.

Also, the Examiner has conveniently failed to address how Huysmans et al. teaches <u>both</u> a normal mode and a test mode as

clearly recited in claim 61. As discussed above, Huysmans et al. clearly teaches away from the use of a test mode (e.g., see column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). In addition, Huysmans et al. also fails to teach both a normal mode and a test mode. Thus, there would have been no motivation to modify Huysmans et al. to provide a test mode, either alone or in combination with a normal mode.

Accordingly, it is respectfully submitted that Huysmans et al. fails to teach, or even suggest, the claimed invention. Accordingly, it is respectfully submitted that claim 61 is not obvious in view of Huysmans et al..

Regarding claim 91, the Examiner asserts that Huysmans et al. teaches a transmit circuit comprising a transmit data storage element (Figure 2; ATM-TC; MUX; column 4, lines 21-23) configured to receive serial data from a transmit data input (column 4, lines 14-17) and sequentially transmit a serial transmit data output signal (column 4, lines 12-23) when the transmit circuit is operating in a normal mode (column 4, lines 46-65), the transmit data storage element further configured to provide a repeating pattern signal (column 5, lines 21-35) when the transmit circuit is operating in a test mode, the transmit circuit sequentially transmitting the serial transmit data output signal based on the repeating pattern signal when the

transmit circuit is operating in the test mode (column 4, lines 24-30), as claimed.

However, despite the Examiner's attempt to portray Huysmans et al. as teaching a test mode, it is clear that Huysmans et al. fails to provide such a teaching. Indeed, it is respectfully submitted, and the Examiner even acknowledges, that Huysmans et al. clearly teaches away from the use of a test mode (e.g., see column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). Thus, there would have been no motivation to either modify Huysmans et al. to provide a test mode, nor would there have been any motivation to combine Huysmans et al. with any other reference which teaches of having a test mode.

Also, the Examiner has conveniently failed to address how Huysmans et al. teaches both a normal mode and a test mode as clearly recited in claim 91. As discussed above, Huysmans et al. clearly teaches away from the use of a test mode (e.g., see column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). In addition, Huysmans et al. also fails to teach both a normal mode and a test mode. Thus, there would have been no motivation to modify Huysmans et al. to provide a test mode, either alone or in combination with a normal mode.

Accordingly, it is respectfully submitted that Huysmans et al. fails to teach, or even suggest, the claimed invention.

Accordingly, it is respectfully submitted that claim 91 is not obvious in view of Huysmans et al..

Regarding claim 93, the Examiner asserts that Huysmans et al. teaches a receive circuit (Figure 3) comprising: a receive data storage element (Figure 3; ATM-RC; DMUX; PG2) configured to output a serial receive data output signal based on a serial receive data input signal (Figure 3; IN') received at a receive data input when the receive circuit is operating in a normal mode (column 4, lines 31-65), the receive data storage element further configured to provide a repeating pattern signal (column 5, lines 57-64) when the receive circuit is operating in a test mode; and a comparison element (Figure 3; CMP) configured to perform a comparison of a relationship between the repeating pattern signal and the serial receive data input signal received at the receive data input (column 5, lines 57-65) and to produce a comparison output signal (Figure 3; O2') based on the comparison when the receive circuit is operating in the test mode (column 5, lines 65-67), as claimed.

However, despite the Examiner's attempt to portray Huysmans et al. as teaching a test mode, it is clear that Huysmans et al. fails to provide such a teaching. Indeed, it is respectfully submitted, and the Examiner even acknowledges, that Huysmans et al. clearly teaches away from the use of a test mode (e.g., see

column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). Thus, there would have been no motivation to either modify Huysmans et al. to provide a test mode, nor would there have been any motivation to combine Huysmans et al. with any other reference which teaches of having a test mode.

Also, the Examiner has conveniently failed to address how Huysmans et al. teaches both a normal mode and a test mode as clearly recited in claim 93. As discussed above, Huysmans et al. clearly teaches away from the use of a test mode (e.g., see column 1, lines 65-67; column 2, lines 24-29; column 6, lines 1-4; etc.). In addition, Huysmans et al. also fails to teach both a normal mode and a test mode. Thus, there would have been no motivation to modify Huysmans et al. to provide a test mode, either alone or in combination with a normal mode.

Accordingly, it is respectfully submitted that Huysmans et al. fails to teach, or even suggest, the claimed invention. Accordingly, it is respectfully submitted that claim 93 is not obvious in view of Huysmans et al..

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 61, 91, and 93 be withdrawn.

XXII. THE OBVIOUSNESS REJECTION OF CLAIMS 62-65, 68, AND 70

On page 4 of the Office Action, the Examiner maintained the rejection of claims 62-65, 68, and 70 under 35 U.S.C. § 103(a) as being unpatentable over Huysmans et al. (U.S. Patent No. 6,693,881) in view of Gauthier et al. (U.S. Patent No. 5,228,042). This rejection is hereby respectfully traversed.

Claims 62-65, 68, and 70 are dependent upon independent claim 61. Thus, since independent claim 61 should be allowable as discussed above, claims 62-65, 68, and 70 should also be allowable at least by virtue of their dependency on independent claim 61. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 62-65, 68, and 70 be withdrawn.

XXIII. THE OBVIOUSNESS REJECTION OF CLAIM 69

On page 4 of the Office Action, the Examiner maintained the rejection of claim 69 under 35 U.S.C. § 103(a) as being unpatentable over Huysmans et al. (U.S. Patent No. 6,693,881) in view of Johnson et al. (U.S. Patent No. 6,606,041). This rejection is hereby respectfully traversed.

Claim 69 is dependent upon independent claim 61. Thus, since independent claim 61 should be allowable as discussed above, claim 69 should also be allowable at least by virtue of its dependency on independent claim 61. Moreover, this claim recites additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 69 be withdrawn.

XXIV. THE OBVIOUSNESS REJECTION OF CLAIMS 71-74

On page 4 of the Office Action, the Examiner maintained the rejection of claims 71-74 under 35 U.S.C. § 103(a) as being unpatentable over Huysmans et al. (U.S. Patent No. 6,693,881) in view of Gauthier et al. (U.S. Patent No. 5,228,042) and further in view of Maddux et al. (U.S. Patent No. 6,421,801). This rejection is hereby respectfully traversed.

Claims 71-74 are dependent upon independent claim 61. Thus, since independent claim 61 should be allowable as discussed above, claims 71-74 should also be allowable at least by virtue of their dependency on independent claim 61. Moreover, these claims recite additional features which are not

claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 71-74 be withdrawn.

XXV. THE OBVIOUSNESS REJECTION OF CLAIMS 75 AND 76

On page 4 of the Office Action, the Examiner maintained the rejection of claims 75 and 76 under 35 U.S.C. § 103(a) as being unpatentable over Huysmans et al. (U.S. Patent No. 6,693,881) in view of Gauthier et al. (U.S. Patent No. 5,228,042) and further in view of Maddux et al. (U.S. Patent No. 6,421,801) and further in view of Johnson et al. (U.S. Patent No. 6,606,041). This rejection is hereby respectfully traversed.

Claims 75 and 76 are dependent upon independent claim 61. Thus, since independent claim 61 should be allowable as discussed above, claims 75 and 76 should also be allowable at least by virtue of their dependency on independent claim 61. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 75 and 76 be withdrawn.

XXVI. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Hunton & Williams LLP

By: _____
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TEA/vrp

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